REMARKS

Claims 1-10 are pending.

Claims 11-30 have been cancelled.

Claims 31-39 have been added.

In the Office Action dated January 23, 2009, claims 1-10 were rejected under 35 U.S.C. § 102(b) as anticipated by Applying Boosting Techniques to Genetic Programming (Paris).

Claim 1 has been amended to more specifically tie the claim to a processor. The amendment has not been made in response to the § 102 rejection. Support for the amendment can be found in Figs. 4a-4b and the accompanying text of the Specification.

Independent claim 1 recites a processor-based method for determining difficulty measures for training cases used in developing a solution to a problem, comprising:

- providing a set of training cases having respectively associated difficulty measures;
- operating, by a processor, a candidate solution on a particular training case;
- determining, by the processor, a performance measure of the candidate solution operating on the particular training case;
- determining, by the processor, a credibility rating of the candidate solution, the credibility rating indicating a degree to which the performance measure is representative of the difficulty measure of the particular training case; and
- modifying, by the processor, the difficulty measure of the particular training case based on the performance measure of the candidate solution operating on the particular training case and the credibility rating of the candidate solution.

It is respectfully submitted that claim 1 is clearly not anticipated by Paris.

As a preliminary note, it is respectfully submitted that the characterization in the Office Action that "applicant's inventive concept is combination of evolutionary strategy with boosting" appears to be a characterization based on the teachings of the cited reference Paris, and not based on the express words of the claim itself. Claim 1 should be construed according to the express language in the claim, not based on language that appears in a cited reference.

It is clear that Paris does not provide any teaching of the claimed subject matter.

Claim 1 recites providing a set of training cases having respectively associated difficulty measures. The Office Action argued that § 4.2 of Paris discloses such a set of training cases

having respectively associated difficulty measures. Specifically, the Office Action pointed to the learning set S. The Office Action does not specifically point out what in § 4.2 of Paris constitutes the "difficulty measures" referred to in claim 1. However, it appears that with respect to the "modifying the difficulty measure" element of claim 1, the Office Action had cited the updating of the distribution D_{t+1} as constituting "modifying the difficulty measure." Therefore, it appears that the Office Action is equating the distribution $D_{1(i)}$ as being the "difficulty measures" recited in claim 1.

Applicant does not make any concession that such a distribution $D_{1(i)}$ can be considered the difficulty measures of claim 1. Applicant does not need to reach that issue because Paris clearly does not provide any teaching of other elements of claim 1.

The Office Action argued that updating the distribution D_{t+1} based on a previous distribution D_t, as disclosed in § 4.2 of Paris, constitutes "modifying the difficulty measure of the particular training case" recited in claim 1. Updating the distribution D_{t+1} is based on the previous version of D_t and the parameter β_t as well as a normalization factor Z_t. The parameter β_t is calculated based on the average loss of all examples in the learning set S, as explained in § 4.2 of Paris. Paris states that the parameter β_t is the confidence given to function f_t for run t. However, there is absolutely no indication that updating the distribution D_{t+1} in Paris is "based on the performance measure of the candidate solution operating on the particular training case and the credibility rating of the candidate solution." Leaving aside whether or not the parameter β_t in Paris is the same as the "credibility rating" of claim 1, Paris still fails to disclose that updating its distribution is based on the performance measure of the candidate solution operating on the particular training case. The Office Action had argued that the "performance measure" of claim 1 is equivalent to the fitness function *fit*. However, there is not indication that the updating of the distribution D_{d+1} is based on this fitness function.

It is also noted that the fitness function *fit* of Paris is calculated based on all examples in its learning set S. Therefore, the fitness function of Paris is not a performance measure of the candidate solution operating as the **particular** training case. Note also that the parameter D_{t+1} in Paris is computed based on β_t, which is based on average loss of all examples of the learning set S; therefore, even if it is to be argued that β_t is considered the performance measure (which it clearly is not), updating D_{t+1} based on β_t is not updating D_{t+1} based on the performance measure of the candidate solution operating on the **particular** training case.

Therefore, claim 1 is clearly not anticipated by Paris. Newly added independent claim 32 is similarly allowed.

Dependent claims, including newly added dependent claims 31 and 33-39, are allowable for at least the same reasons as corresponding independent claims.

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims are in condition for allowance which is hereby earnestly solicited and respectfully requested.

The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 08-2025 (200207642-1).

Respectfully submitted,

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